

C<sup>1</sup> cont.  
etching any unreacted silicon from said silicon cap layer.

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4. (Amended) A method for fabricating a silicide for a silicon region, said method comprising:

C<sup>2</sup>  
depositing a metal containing silicon or a metal alloy on a bulk silicon substrate;

reacting said metal containing silicon or said alloy to form a first silicide phase;

etching any unreacted metal containing silicon or alloy;

depositing a silicon cap layer over said first silicide phase;

reacting the silicon cap layer to form a second silicide phase; and

etching any unreacted silicon from said silicon cap layer.

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10. (Amended) A method for fabricating a silicide for a silicon region, said method comprising:

depositing a metal or a metal alloy on a bulk silicon substrate;

reacting said metal or said alloy to form a first silicide phase;

C<sup>3</sup>  
etching any unreacted metal or alloy;

depositing a silicon cap layer over said first silicide phase;

reacting the silicon cap layer to form a second silicide phase; and

etching any unreacted silicon from said silicon cap layer,

wherein said metal is co-deposited with silicon.

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13. (Amended) A method for fabricating a silicide, said method comprising:

C<sup>4</sup>  
providing a substrate having a silicon layer;

depositing a metal containing silicon or a metal alloy over said silicon layer;

reacting said metal containing silicon or said alloy to form a first silicide phase;

CH  
cont.

etching any unreacted metal containing silicon or alloy; and  
depositing a silicon cap layer over said metal containing silicon or said alloy;  
reacting the silicon cap layer, to form a second silicide phase; and  
etching any unreacted silicon from said silicon cap layer.

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25. (Amended) A method for fabricating a silicide for a semiconductor device, said method comprising:

C5

depositing a metal containing silicon or a metal alloy on a silicon substrate;  
reacting said metal containing silicon or said alloy to form a first forming silicide phase;  
etching any unreacted metal or alloy;  
depositing a silicon cap layer over said first forming silicide phase;  
reacting the silicon cap layer to form a second silicide phase, for said semiconductor device; and  
etching any unreacted silicon from said silicon cap layer.

26. (Amended) A method for fabricating a silicide for a silicon region, said method comprising:

depositing a metal containing silicon or a metal alloy on a bulk silicon substrate;  
reacting said metal containing silicon or said alloy to form a first silicide phase;  
etching any unreacted metal containing silicon or alloy;  
depositing a silicon cap layer over said first silicide phase;

<sup>C5</sup>  
com. reacting the silicon cap layer to form a second phase; and  
etching any unreacted silicon from said silicon cap layer, wherein said metal is nickel.

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**Please add the following new claims:**

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<sup>Dm</sup> 27. The method of claim 1, wherein said first silicide phase comprises a silicon-rich phase.

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28. The method of claim 1, wherein said depositing said metal containing silicon or said metal alloy is for extending a temperature window in which a silicide metal-rich phase exists.

<sup>DH</sup> 29. The method of claim 4, wherein said first silicide phase comprises a silicon-rich phase.

<sup>C6</sup> 30. The method of claim 4, wherein said depositing said metal containing silicon or said metal alloy is for extending a temperature window in which a silicide metal-rich phase exists.

<sup>DS</sup> 31. The method of claim 10, wherein said first silicide phase comprises a silicon-rich phase.

32. The method of claim 10, wherein said depositing said metal containing silicon or said metal alloy is for extending a temperature window in which a silicide metal-rich phase exists.

<sup>de</sup> 33. The method of claim 13, wherein said first silicide phase comprises a silicon-rich phase.